

REMARKS

This is in response to the Final Rejection mailed July 16, 2002 (Paper No. 7).

The Amendment filed April 29, 2002 is objected to by the Examiner under 35 U.S.C. 132 because it allegedly introduces new matter into the disclosure. The gist of the Examiner's objection is that the specification provides support only for (meth)acrylic or methacrylic acid not for acrylic polymer and only for alkyl (meth)acrylamide or alkylmethacrylamide not for alkylacrylamide.

The Examiner's attention is respectfully directed to the description of the branched block copolymers at page 3, lines 17-21. These copolymers are expressly stated to be acrylic acid as well as methacrylic acid and n-butyl acrylate as well as allyl methacrylate. Thus, the specification clearly supports acrylic acid as well as alkylacrylamide. ?

To further support the above argument, attached is a printout from the U.S. Patent and Trademark Office website of the last 50 out of 1238 patents granted between 1996 and 2002 using in the claims the parenthetical expression "(meth)." A copy of the last such issued patent (USPN 6,458,991) also is attached.

Claims 26-39 are rejected by the Examiner under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The principal basis for this rejection is discussed above in connection with the new matter rejection. With respect to "the polymer having a structure comprising hydrophobic blocks onto which more hydrophilic blocks are attached via bi-functional units," this language is clearly supported at page 3, lines 5-8 of the specification. Moreover, "bifunctional monomer" in claim 27 is merely the description of the inherent function of allyl methacrylate which provides the bi-functional units of claim 26. Thus, the claims are supported by the disclosure as originally filed.

Claims 12-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Midha et al (USPN 5,986,015). The Examiner substantially repeats the discussion of Midha et al in the initial Office Action and again concludes it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the branched block copolymer and the

thickeners claimed herein in a cosmetic hair gel composition. The Examiner also relies on substantially the same alleged motivation as in the initial Office Action to employ the branched block copolymer and the thickeners claimed herein. In response to applicants' arguments, the Examiner notes that thickeners are known to be readily employed in the cosmetic art and that the difference between the graft copolymer employed in Midha et al and the branched block copolymer herein is a distinction without a difference. This rejection is respectfully traversed.

The Examiner refers to the definition of graft copolymers in Midha *et al.* at column 5, lines 14-25. This definition includes, inter alia, the statement that the graft polymers "... are characterized by a hydrophilic or hydrophobic polymeric backbone with a plurality of hydrophobic or hydrophilic polymeric side chains covalently bonded to and pendant from the polymeric backbone."

This definition is very general and includes the following groups of graft polymers:

- (1) hydrophobic backbone + hydrophobic side chains;
- (2) hydrophilic backbone + hydrophilic side chains;
- (3) hydrophobic backbone + hydrophilic side chains;
- (4) hydrophilic backbone + hydrophobic side chains;
- (5) hydrophobic backbone + hydrophilic and hydrophobic side chains; and
- (6) hydrophilic backbone + hydrophilic and hydrophobic side chains.

Midha *et al.* specifically discloses only the *first two* groups of graft copolymers, *i.e.*, "hydrophilic graft polymers" listed at col. 7, line 56 to col. line 20, and "hydrophobic graft polymers" listed at col. 8, line 59 to col. 9, line 10. By contrast, only polymers of group (3) are claimed in the present invention in combination with a first acrylic thickener and a second non-cellulosic thickener.

The Examiner contends that the skilled artisan would only perceive a *distinction without a difference* between the graft copolymers of Midha *et al.* and the branched block copolymers of the present invention. As a matter of fact, one of ordinary skill in the art knows that the physico-chemical properties of the above listed groups of polymers (*e.g.*, solubility in water or in non-polar solvents, thickening effect, electrostatic or hydrophobic interaction with other ingredients, intra- and interchain interactions, affinity for the keratinic cosmetic substrate) strongly depend on the respective fraction of hydrophilic/hydrophobic monomers or hydrophilic/hydrophobic

blocks. This is confirmed by the teaching in Midha *et al.* that “[t]he graft polymers are especially *versatile* in that the polymeric backbone and the attached macromonomer grafts can have select or different chemical physical properties which collectively provide the optimal formulation or performance profile....” (see column 1, lines 28-34).

It is the applicant’s position that even assuming, *arguendo*, that the Examiner’s contention (“The Skilled Artisan can perceive a *distinction without a difference* between the Graft copolymer employed in Midha *et al.* and the branched block copolymer herein”) was true, this would not establish the obviousness of the claimed invention. Indeed, the subject matter of the present invention is *not* the use of the specific branched block copolymer for hair styling compositions. This use has already been described in WO 00/40628. The subject matter of the present invention is a special combination of at least two thickening agents, *i.e.*, an acrylic thickening agent and a non-cellulosic cothickener, in cosmetic compositions containing the specific branched block copolymers described in WO 00/40628.

The use of *at least two thickening agents* - one being an acrylic thickener and the other a non-cellulosic thickener - is neither disclosed nor suggested by Midha *et al.* The only hair styling gel (Example 17) contains a single acrylic thickener (Carbomer ®940). As already explained in the response to the first Action, one of ordinary skill in the art would have had no reason to add a second polymer thickener since 0.5 weight % of the acrylic thickener (Carbomer 940) gave satisfactory gelification of the hair styling gel containing the Graft copolymer 1.2 of Example 17 of Midha *et al.*.

The fact that such a satisfactory gelification could not be obtained when using 1.4 weight % of an acrylic thickening polymer in combination with the specific claimed fixing polymer (see composition C of the example of the present application) shows that (contrary to the Examiner’s contention) there is a *distinction with a difference* between the graft copolymers of Midha *et al.* and the branched block copolymers of the present invention.

The Examiner, in response to applicant’s arguments, notes that thickeners are known to be readily employed in the cosmetic art and that there is no evidence of the criticality of the particular thickening agents or combination of thickening agent. To the contrary, the comparative examples of the present application clearly show that the claimed thickener combination of an acrylic thickening polymer (b) and a **non-cellulosic** co-thickening polymer (c)

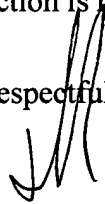
imparts a considerably higher viscosity (2.540 Pa.s) to compositions containing the fixing polymer (a) than does a thickener combination containing an acrylic thickening polymer (b) and a **cellulosic** cothickener (1.480 Pa.s). Thus, use of a non-cellulosic co-thickener is unobvious over the cited prior art.

As a final point, claim 36 has been limited to the exemplified cothickeners, guar gum. Attached hereto is a marked-up version of the changes made to claim 36 by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

The Commissioner is hereby authorized to charge any fees due in connection with the present Amendment to Deposit Account 19-4293.

In view of the foregoing, early and favorable action is respectfully requested.

Respectfully submitted,



D. Douglas Price
Reg. No. 24,514

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STEPTOE & JOHNSON LLP
1330 Connecticut Ave., N.W.
Washington, D.C. 20036
(202) 429-6748

Version with markings to show changes made

Claim 36 has been amended as follows:

36. (amended) The cosmetic composition according to claim 35, wherein the co-thickening agent (c) is guar gum [or xanthan gum].